

## CLAIMS

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5 1. In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the steps of:

a) receiving program guide information for display from at least one source, said program guide information including User selectable menu icons;

10 b) generating program map information in said decoder for associating a User selectable menu icon with access data enabling initiation of communication between said decoder and said external device in response to selection of said menu icon presented in said program guide information for display;

15 c) retrieving access data from memory, said access data enabling initiation of communication between said decoder and a device external to said video decoder in response to User selection of said displayed program guide menu option; and

d) formatting said program guide for display.

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2. A method according to claim 1, including the step of:

generating program map information for associating different displayed User selectable menu icons with different communication links.

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3. A method according to claim 1, including the step of:

generating said program map information to further associate said User selectable menu icon with said access data and a data identifier for acquiring data from said external device.

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4. A method according to claim 1, including the step of:  
generating program map information for associating a  
displayed User selectable menu icon with both request access data  
5 and response access data for bi-directional communication.

5. A method according to claim 4, wherein  
said request access data includes one of a) a telephone/fax  
number, b) an Internet identifier or address code and c) conditional  
10 access data; and  
said response access data includes at least one of a) a data  
identifier, b) a channel number, and c) a transponder number.

6. A method according to claim 4, including the step of:  
generating program map information for associating  
15 different displayed User selectable menu icons with different address  
representative codes corresponding to the addresses of information  
sources.

20 7. A method according to claim 1, including the step of:  
generating program map information for associating  
different displayed User selectable menu icons with different address  
representative codes corresponding to the addresses of at least two  
sources selected from: a) a storage source; b) a satellite broadcast  
25 source; c) a terrestrial broadcast source; d) a cable broadcast source;  
e) a computer source; f) a radio transmission source and g) a source  
accessed via telephone lines.

8. A method according to claim 1, including the step of:  
generating program map information for associating  
different displayed User selectable menu icons with different  
5 conditional access information for determining access to programs  
based upon User entitlement.

9. A method according to claim 1, including the step of:  
generating program map information for associating  
10 different displayed User selectable menu icons with different physical  
communication network parameters.

10. A method according to claim 1, including the step of:  
deriving said access data from said received program  
guide information.

11. A method according to claim 1, including the step of:  
generating program map information for associating  
different displayed User selectable menu icons with different address  
20 representative codes corresponding to the addresses of information  
sources provided to said decoder by a User.

12. A method according to claim 11, wherein  
said address representative codes include at least one of  
25 a) telephone/fax number representative information, and b) Internet  
address representative information.

13. In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the steps of:

5 a) receiving program guide information from at least one source;

b) generating a menu icon for display in a displayed program guide, said menu icon permitting a User to initiate communication between said video decoder and a device external to  
10 said video decoder;

c) generating program map information in said decoder for associating said menu icon with access data enabling establishment of bi-directional communication between said decoder and said external device in response to selection of said menu icon presented in said program guide information for display;

d) incorporating program guide information and said menu icon in a program guide; and

e) formatting said program guide for display.

20 14. A method according to claim 13, including the step of: deriving said access data from said program guide information.

15. A method according to claim 13, including the step of: 25 generating program map information for associating different displayed User selectable menu icons with different communication links.

generating said program map information to further associate said menu icon with said access data and a data identifier 30 for acquiring data from said external device.

16. A method according to claim 15 including the step of: associating different access data with corresponding different communication links.

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17. A method according to claim 13, including the step of: generating program map information for associating said menu icon with both request access data and response access data.

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18. A method according to claim 17, wherein said request access data includes one of a) a telephone/fax number, b) an Internet identifier or address code and c) conditional access data; and

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19. A method according to claim 17, including the step of: said response access data includes at least one of a) a data identifier, b) a channel number, and c) a transponder number.

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19. A method according to claim 17, including the step of: generating program map information for associating different displayed User selectable menu icons with different address representative codes corresponding to the addresses of information sources.

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20. A method according to claim 13, including the step of: generating program map information for associating different displayed User selectable menu icons with different address representative codes corresponding to the addresses of at least two sources selected from: a) a storage source; b) a satellite broadcast

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source; c) a terrestrial broadcast source; d) a cable broadcast source; e) a computer source; f) a radio transmission source and g) a source accessed via telephone lines.

21. A method according to claim 13, including the step of:  
generating program map information for associating  
different displayed User selectable menu icons with different  
5 conditional access information for determining access to programs  
based upon User entitlement.

22. A method according to claim 13, including the step of:  
generating program map information for associating  
10 different displayed User selectable menu icons with different physical  
communication network parameters.

23. A method according to claim 13, including the step of:  
generating program map information for associating  
15 different displayed User selectable menu icons with different address  
representative codes corresponding to the addresses of information  
sources provided to said decoder by a User.

24. A method according to claim 23, wherein  
20 said address representative codes include at least one of  
a) telephone/fax number representative information, and b) Internet  
address representative information.

25. A method according to claim 13, including the step of:  
25 generating program map information for associating  
different packet identifiers (PIDs) with program guide information  
from different sources.

~~26.~~ In a video decoder system, a method for forming a program guide allowing a User to select a function, comprising the steps of:

5           a) receiving program guide information from at least one source;

10           b) generating a menu icon for display in a displayed program guide, said menu icon permitting a User to initiate communication between said video decoder and a device external to said video decoder;

15           c) generating program map information associating said menu icon with a communication protocol and both request access data and response access data enabling establishment of communication between said decoder and said external device in response to selection of said menu icon presented in said program guide information for display;

20           d) incorporating program guide information and said menu icon in a program guide; and

25           e) formatting said program guide for display.